

STIC Search Report

EIC 1700

STIC Database Tracking Number: 99692

TO: Duc Truong
Location: CP3 4D29
Art Unit : 1711
July 28, 2003

Case Serial Number: 10/067669

From: Kathleen Fuller
Location: EIC 1700
CP3/4 3D62
Phone: 308-4290

Kathleen.Fuller@uspto.gov

Search Notes

I SEARCHED THIS STRUCTURE 2 DIFFERENT WAYS . FIRST AS A COMPOUND OR
STRUCTURAL REPEATING UNIT AND THEN AS A POLYMER WITH STARTING MONOMERS.



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
308-4290, CP3/4-3D62

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC1700 CP3/4 3D62



=> FILE REG

FILE 'REGISTRY' ENTERED AT 12:58:01 ON 28 JUL 2003
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 27 JUL 2003 HIGHEST RN 556005-78-8
DICTIONARY FILE UPDATES: 27 JUL 2003 HIGHEST RN 556005-78-8

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STN Note 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 12:58:06 ON 28 JUL 2003
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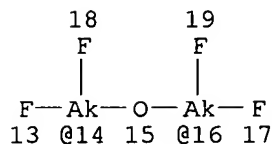
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FILE COVERS 1907 - 28 Jul 2003 VOL 139 ISS 5
FILE LAST UPDATED: 27 Jul 2003 (20030727/ED)

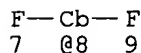
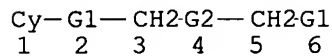
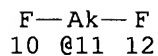
This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D QUE

L42 STR



ring

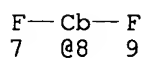
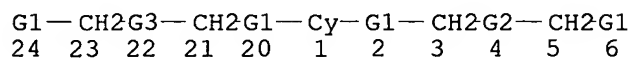


*321 structures
from the
query*

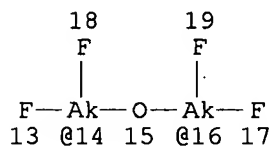
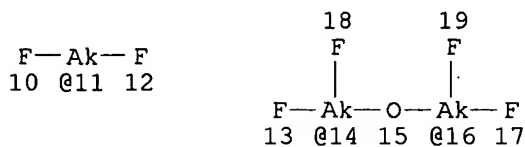
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VAR G2=11/14-3 16-5/8
NODE ATTRIBUTES:
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GGCAT IS UNS AT 1
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE
L44 SCR 1971 AND 1838
L50 321 SEA FILE=REGISTRY SSS FUL L42 AND L44
L51 STR



*subset search
41 structures*



VAR G1=O/S
VAR G2=11/14-3 16-5/8
VAR G3=8/11/14-23 16-21
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DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 1
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L53 41 SEA FILE=REGISTRY SUB=L50 SSS FUL L51
L54 28 SEA FILE=HCAPLUS ABB=ON L53
L55 3 SEA FILE=HCAPLUS ABB=ON L54 AND OPTIC?
L56 0 SEA FILE=HCAPLUS ABB=ON L54 AND CUR?(3A)ENERG?
L57 0 SEA FILE=HCAPLUS ABB=ON L54 AND CUR?
L59 86 SEA FILE=HCAPLUS ABB=ON L50
L60 2 SEA FILE=HCAPLUS ABB=ON L59 AND CUR?
L77 5 SEA FILE=HCAPLUS ABB=ON (L55 OR L56 OR L57) OR L60

5 CA references with

=> D L77 ALL 1-5 HITSTR

L77 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:967178 HCAPLUS
DN 138:178486
TI Correlated Layer Structures: A Novel Type of Liquid Crystalline Phase with 2D-Lattice
AU Prehm, Marko; Diele, Siegmur; Das, Malay K.; Tschierske, Carsten
CS Institute of Organic Chemistry, Martin-Luther-University Halle-Wittenberg, Halle, D-06120, Germany
SO Journal of the American Chemical Society (2003), 125(3), 614-615
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
CC 75-11 (Crystallography and Liquid Crystals)
AB A novel liq. cryst. quaternary five-block mol. is reported which is composed of four incompatible mol. parts, a rigid biphenyl core, two polar 2,3-dihydroxypropoxy groups in the terminal 4- and 4'-positions, and a branched semiperfluorinated chain in the lateral 3-position, consisting of a perfluorinated and a lipophilic hydrocarbon wing. The self-organization of this compd. was studied by polarized light **optical** microscopy, DSC, and x-ray diffraction of aligned samples. These studies confirm a novel liq. cryst. phase with two-dimensional (2D) lattice (columnar mesophase), which results from the positional correlation of smectic layers. The layer structure results from the segregation of the bolaamphiphilic parts from the side chains. Within the arom. sublayers the biphenyl cores are arranged parallel to the layer planes, and the H-bonding networks of the terminal diol groups are segregated from the biphenyl cores, forming sep. columns. The correlation between adjacent layers is due to the (partial) segregation of the fluorinated and hydrogenated parts of the lateral chains in the nonpolar sublayers.
ST correlated layer structure liq crystal two dimensional lattice
IT Hydrogen bond
(in bis(dihydroxypropoxy)nonyltridecylfluoroundecyloxybiphenyl liq. crystals forming columnar structure)
IT Phase transition enthalpy
(of bis(dihydroxypropoxy)nonyltridecylfluoroundecyloxybiphenyl liq. crystals)
IT Liquid crystals
(prepn., mesomorphism and correlated two-dimensional layer latticelike structure of bis(dihydroxypropoxy)nonyltridecylfluoroundecyloxybiphenyl)
IT Liquid crystals
(transitions; of bis(dihydroxypropoxy)nonyltridecylfluoroundecyloxybiphenyl)

IT 497089-00-6P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(prepn., liq. crystal properties and correlated two-dimensional layer latticelike structure of)

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Cheng, X; Angew Chem, Int Ed 2002, V41, P4031 HCAPLUS
- (2) Gray, G; Smectic Liquid Crystals 1984
- (3) Guillon, D; Structure and Bonding 95: Liquid Crystals II 1999, P41 HCAPLUS
- (4) Hardouin, F; J Chim Phys 1983, V80, P53 HCAPLUS
- (5) Kolbel, M; J Am Chem Soc 2001, V123, P6809
- (6) Lehn, J; Proc Natl Acad Sci U S A 2002, V99, P4763 HCAPLUS
- (7) Nguyen, H; Handbook of Liquid Crystals 1998, V2B, P685
- (8) Ostrovskii, B; Liq Cryst 1993, V14, P131 HCAPLUS
- (9) Percec, V; Biomacromolecules 2000, V1, P6 HCAPLUS
- (10) Prehm, M; J Am Chem Soc 2002, V124, P12072 HCAPLUS
- (11) Shen, D; J Am Chem Soc 2000, V122, P1593 HCAPLUS
- (12) Tschierske, C; Ann Rep Prog Chem Sect C 2001, V97, P191 HCAPLUS
- (13) Tschierske, C; J Mater Chem 2001, V11, P2647 HCAPLUS
- (14) Watanabe, J; Jpn J Appl Phys 1998, V37, PL139 HCAPLUS

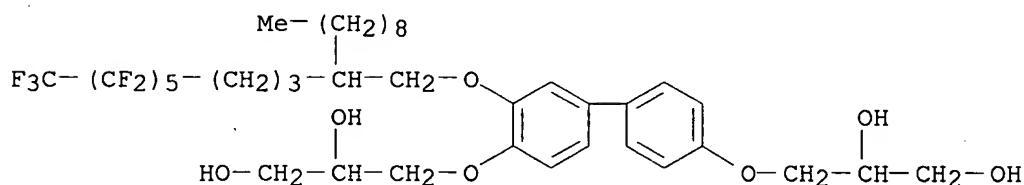
IT 497089-00-6P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(prepn., liq. crystal properties and correlated two-dimensional layer latticelike structure of)

RN 497089-00-6 HCAPLUS

CN 1,2-Propanediol, 3,3'-[[3-[(6,6,7,7,8,8,9,9,10,10,11,11,11-tridecafluoro-2-nonylundecyl)oxy][1,1'-biphenyl]-4,4'-diyl]bis(oxy)]bis- (9CI) (CA INDEX NAME)



L77 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:941820 HCAPLUS

DN 138:31092

TI Process and materials for inducing alignment of liquid crystals and liquid crystal optical elements

IN Gibbons, Wayne M.; Rose, Patricia A.; Shannon, Paul J.; Zheng, Hanxing

PA Elsicon, Inc., USA

SO U.S., 16 pp., Cont.-in-part of U.S. 6,103,322.

CODEN: USXXAM

DT Patent

LA English

IC ICM B05D003-06

ICS B05D005-06; C09K019-02; C09K019-56

NCL 427553000; 427162000; 427532000; 428001200; 428001250; 428001260

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

Section cross-reference(s): 35

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6491988	B1	20021210	US 2000-544684	20000407
	US 6103322	A	20000815	US 1998-221295	19981223
	TW 487823	B	20020521	TW 1999-88122603	19991222

PRAI US 1998-221295 A2 19981223

AB The materials comprise polyamic acids and polyimides contg. anisotropically absorbing groups as optical alignment layers for inducing alignment of a liq. crystal medium. The process involves prep. a layer of the polymer on a substrate, exposing the layer to polarized light to effect alignment of the liq. crystal. The polymers comprise crosslinking diamines contg. C3-C22 linear or branched hydrocarbon chains contg. 1 to 4 carbon-carbon double bonds. The aligned layers are used in liq. crystal displays. An amine monomer, N,N-diallyl-2,4-dinitrobenzene-amine, was prepd. from 2,4-dinitrofluorobenzene and 1-methylpyrrolidinone and used to prep. the corresponding polyimide via reaction with a dianhydride to produce the polyamic acid which was then cyclized by thermal **curing** and the formed polyimide was subjected to alignment expts.

ST polyamic acid polyimide prepn liq crystal optical alignment; amine substituent anisotropically absorbing group polyimide liq crystal

IT Polyamic acids

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(functionalized arom. diamine and triamine-contg.; prepn. of functionalized diamine monomers and polyimides and optical alignment on exposure to laser light toward use in LCDs)

IT Polyimides, preparation

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(functionalized arom. diamine and triamine-contg.; prepn. of functionalized diamine monomers and polyimides and optical alignment on exposure to laser light toward use in LCDs)

IT Liquid crystals, polymeric

(prepn. of functionalized diamine monomers and polyimides and optical alignment on exposure to laser light toward use in LCDs)

IT 30617-00-6P, 2-Allyloxy-1,4-dinitrobenzene

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of functionalized diamine monomers and polyimides and optical alignment on exposure to laser light toward use in LCDs)

IT 280755-49-9, N-2-Methylallyl-N-ethyl-1,2,4-benzene-triamine

RL: RCT (Reactant); RACT (Reactant or reagent)
(monomer; prepn. of functionalized diamine monomers and polyimides and optical alignment on exposure to laser light toward use in LCDs)

IT 280755-47-7P, N,N-Diallyl-1,2,4-benzene-triamine 280755-48-8P, N,N-Diallyl-1,2,5-benzene-triamine 280755-50-2P, 2-Allyloxy-1,4-benzene-diamine 280755-51-3P, 4-(4'-Pentenloxy)-1,3-benzene-diamine 280755-52-4P, N-Methyl-N-geranyl-1,2,5-benzene-triamine 280755-53-5P 280755-55-7P 280755-59-1P 477801-89-1P 477801-90-4P 477801-91-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; prepn. of functionalized diamine monomers and polyimides and optical alignment on exposure to laser light toward use in LCDs)

IT 51-28-5, 2,4-Dinitrophenol, reactions 70-34-8, 2,4-Dinitrofluorobenzene 106-95-6, Allyl bromide, reactions 124-02-7, Diallylamine 329-71-5,

2,5-Dinitrophenol 872-50-4, 1-Methylpyrrolidone, reactions 1119-51-3,
5-Bromo-1-pentene 2369-13-3, 3-Fluoro-4-nitroaniline 4895-14-1,
8-Bromo-2,6-dimethyl-2-octene 7261-05-4, N-Methylfarnesylamine
18328-90-0, N-2-Methylallyl-N-ethylamine 22146-69-6, N-Methyloleylamine
63343-64-6, N-Methylgeranylamine 112213-03-3, N-Methyl-3-methyl-3-
butenylamine 280755-56-8, N-Methylcitronellylamine
RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of functionalized diamine monomers and polyimides and optical
alignment on exposure to laser light toward use in LCDs)

IT 280755-60-4P, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-N,N-
diallyl-1,2,4-benzenetriamine-2,5-diaminobenzonitrile copolymer
280755-61-5P, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-N,N-
diallyl-1,2,4-benzenetriamine copolymer 280755-62-6P,
3,3',4,4'-Benzophenonetetracarboxylic dianhydride-N,N-diallyl-1,2,5-
benzenetriamine-2,5-diaminobenzonitrile copolymer 280755-63-7P,
3,3',4,4'-Benzophenonetetracarboxylic dianhydride-2,5-diaminobenzonitrile-
N-2-methylallyl-N-ethyl-1,2,4-benzenetriamine copolymer 280755-67-1P,
3,3',4,4'-Benzophenonetetracarboxylic dianhydride-N,N-diallyl-1,2,4-
benzenetriamine-2-(trifluoromethyl)-1,4-benzenediamine copolymer
280755-68-2P, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-N,N-
diallyl-1,2,4-benzenetriamine-1,4-phenylenediamine copolymer
280755-69-3P, 4-(1H,1H-Perfluorooctyloxy)benzeneamine-3,3',4,4'-
benzophenonetetracarboxylic dianhydride-N,N-diallyl-1,2,4-benzenetriamine-
2,5-diaminobenzonitrile copolymer 280755-70-6P **280755-73-9P**
477801-92-6P, 2-Allyloxy-1,4-benzenediamine-3,3',4,4'-
benzophenonetetracarboxylic dianhydride-2,5-diaminobenzonitrile copolymer
477801-93-7P, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-2,5-
diaminobenzonitrile-4-(4'-pentenyloxy)-1,3-benzenediamine copolymer
477801-94-8P, 3,3',4,4'-Benzophenonetetracarboxylic dianhydride-2,5-
diaminobenzonitrile-N-methyl-N-geranyl-1,2,5-benzenetriamine copolymer
477801-95-9P 477933-44-1P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)

(prepn. of functionalized diamine monomers and polyimides and optical
alignment on exposure to laser light toward use in LCDs)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; WO 9745497 1997 HCAPLUS
- (2) Gibbons; US 5731405 A 1998 HCAPLUS
- (3) Ichimura; US 6001277 A 1999 HCAPLUS
- (4) Ogawa; US 6224788 B1 2001 HCAPLUS
- (5) Yu; US 5976640 A 1999 HCAPLUS

IT **280755-73-9P 477801-95-9P**

RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)

(prepn. of functionalized diamine monomers and polyimides and optical
alignment on exposure to laser light toward use in LCDs)

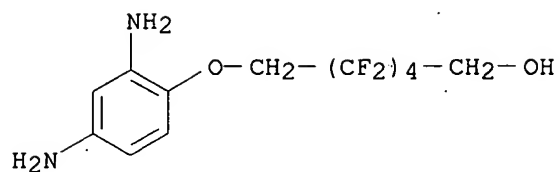
RN 280755-73-9 HCAPLUS

CN Benzonitrile, 2,5-diamino-, polymer with 5,5'-carbonylbis[1,3-
isobenzofurandione], 6-(2,4-diaminophenoxy)-2,2,3,3,4,4,5,5-octafluoro-1-
hexanol, N,N-di-2-propenyl-1,2,4-benzenetriamine and 4-
[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl)oxy]benzenamine (9CI)
(CA INDEX NAME)

CM 1

CRN 280755-72-8

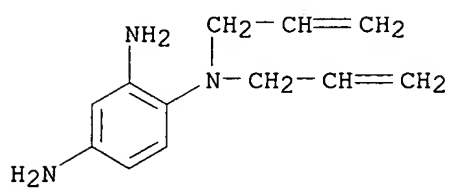
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CM 2

CRN 280755-47-7

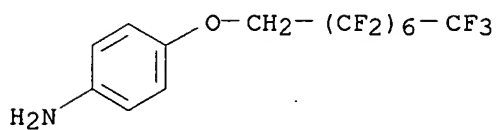
CMF C12 H17 N3



CM 3

CRN 142706-76-1

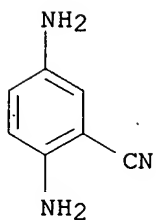
CMF C14 H8 F15 N O



CM 4

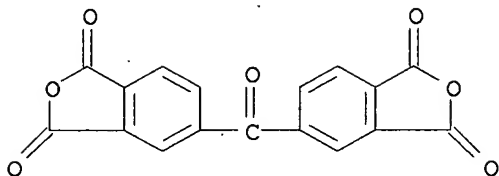
CRN 14346-13-5

CMF C7 H7 N3



CM 5

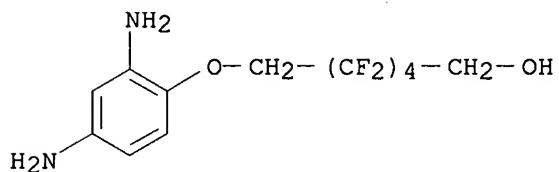
CRN 2421-28-5
CMF C17 H6 O7



RN 477801-95-9 HCAPLUS
CN Benzonitrile, 2,5-diamino-, polymer with 5,5'-carbonylbis[1,3-isobenzofurandione], 6-(2,4-diaminophenoxy)-2,2,3,3,4,4,5,5-octafluoro-1-hexanol, N2,N2-di-2-propenyl-1,2,4-benzenetriamine and 4-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl)oxy]benzenamine (9CI) (CA INDEX NAME)

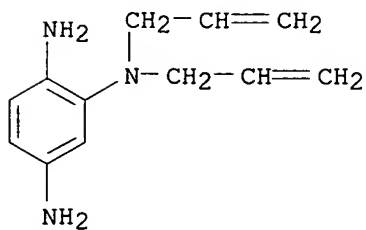
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CRN 280755-72-8
CMF C12 H12 F8 N2 O2



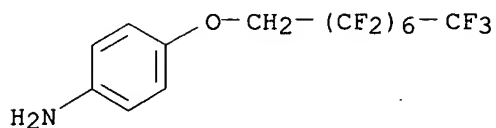
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CRN 280755-48-8
CMF C12 H17 N3



CM 3

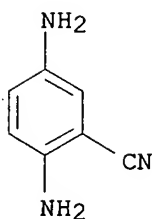
CRN 142706-76-1
CMF C14 H8 F15 N O



CM 4

CRN 14346-13-5

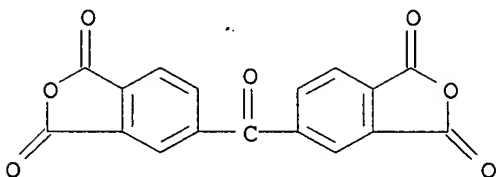
CMF C7 H7 N3



CM 5

CRN 2421-28-5

CMF C17 H6 O7



L77 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1996:394701 HCAPLUS

DN 125:143074

TI Total synthesis of an archaebacterial C40-diol and its enantiomer based on (R)-5-acetoxy-4-methylpentanoic acid

AU Czeskis, B. A.; Alexeev, I. G.; Moiseenkov, A. M.

CS N.D. Zelinsky Inst. Organic Chem., Russian Acad. Scis., Moscow, 117913, Russia

SO Izvestiya Akademii Nauk, Seriya Khimicheskaya (1993), (7), 1303-1309
CODEN: IASKEA

PB Institut Organicheskoi Khimii im. N. D. Zelinskogo Rossiiskoi Akademii Nauk

DT Journal

LA Russian

CC 30-40 (Terpenes and Terpenoids)
Section cross-reference(s): 10AB **Optically** pure archaebacterial C40-diol, (3R,7R,11S,15S,18S,22S,26R,30R)-octamethyldotriacontane-1,32-diol, and its

(3S,7S,11R,15R,18R,22R,26S,30S)-enantiomer have been synthesized in 17 steps and in about 2% overall yields using readily available (R)-5-acetoxy-4-methylpentanoic acid as the only chiral precursor. Both synthetic schemes include consecutive construction of mono- and diterpenoid fragments of the target mols.

ST archaeobacterial octamethyldotriacontanediol enantiomer prepn;
dotriacontanediol octamethyl enantiomer prepn

IT Bacteria

(archae-, archaeobacterial C40-diol and its enantiomer from (R)-5-acetoxy-4-methylpentanoic acid)

IT 110659-28-4, (R)-5-Acetoxy-4-methylpentanoic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(archaeobacterial C40-diol and its enantiomer from (R)-5-acetoxy-4-methylpentanoic acid)

IT 99529-30-3P 110595-22-7P 152492-38-1P 152492-39-2P 152492-41-6P
152492-42-7P 152492-43-8P 152492-44-9P 152492-45-0P 152492-46-1P
152492-47-2P 152492-48-3P 152492-49-4P 152492-50-7P 152492-52-9P
152492-54-1P 152492-55-2P 152492-56-3P 152611-95-5P 152611-97-7P
177567-65-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(archaeobacterial C40-diol and its enantiomer from (R)-5-acetoxy-4-methylpentanoic acid)

IT 152492-51-8P 152492-53-0P 152611-96-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(archaeobacterial C40-diol and its enantiomer from (R)-5-acetoxy-4-methylpentanoic acid)

IT 152492-51-8P 152611-96-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

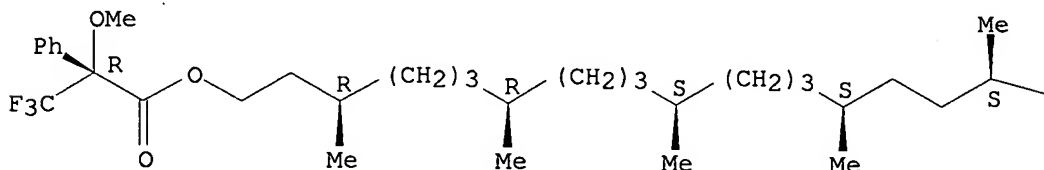
(archaeobacterial C40-diol and its enantiomer from (R)-5-acetoxy-4-methylpentanoic acid)

RN 152492-51-8 HCAPLUS

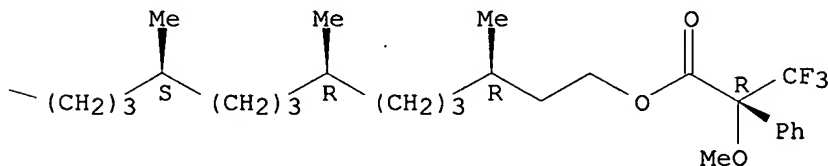
CN Benzeneacetic acid, .alpha.-methoxy-.alpha.-(trifluoromethyl)-, 3,7,11,15,18,22,26,30-octamethyl-1,32-dotriacontanediyl ester, [3R-[1(R*),3R*,7R*,11S*,15S*,18S*,22S*,26R*,30R*,32(R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

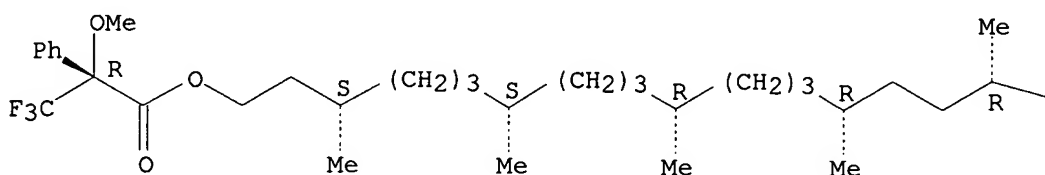


RN 152611-96-6 HCAPLUS

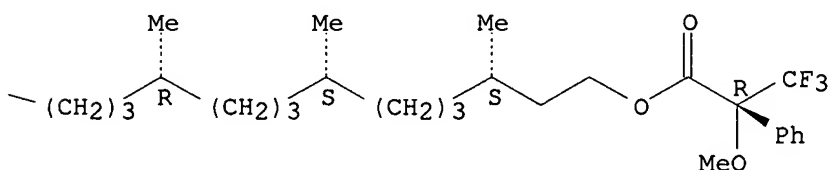
CN Benzeneacetic acid, .alpha.-methoxy-.alpha.-(trifluoromethyl)-, 3,7,11,15,18,22,26,30-octamethyl-1,32-dotriacontanediyl ester, [3S-[1(S*),3R*,7R*,11S*,15S*,18S*,22S*,26R*,30R*,32(S*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L77 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1995:608134 HCAPLUS

DN 123:55766

TI Sulfonylureas and Sulfonylcarbamates as New Non-Tetrazole Angiotensin II Receptor Antagonists. Discovery of a Highly Potent Orally Active (Imidazolylbiphenyl)sulfonylurea (HR 720)

AU Deprez, Pierre; Guillaume, Jacques; Becker, Reinhard; Corbier, Alain; Didierlaurent, Stanislas; Fortin, Michel; Frechet, Daniel; Hamon, Gilles; Heckmann, Bertrand; et al.

CS Hoechst Roussel PGU Cardiovascular Agents, Frankfurt/Main, 65926, Germany

SO Journal of Medicinal Chemistry (1995), 38(13), 2357-77

CODEN: JMCMAR; ISSN: 0022-2623

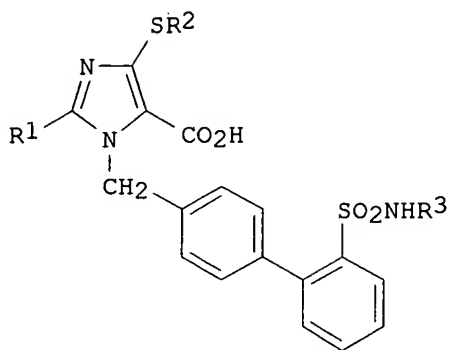
PB American Chemical Society

DT Journal

LA English

CC 28-9 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1

GI



- AB The synthesis and pharmacol. activity of new potent nonpeptide non-tetrazole angiotensin II (AII) receptor antagonists are described. These compds. are 4-thioimidazole derivs. linked at N1 to a biphenylsulfonfyl fragment by a methylene spacer. Different acidic sulfonamides such as sulfonylureas I (R1, R2 = alkyl, R3 = PrNHCO), sulfonylcarbamates I (R1 = Bu, R2 = Me, R3 = carbalkoxy), sulfonylamides I (same R-R2, R3 = acyl), and sulfonylsulfonamides I (same R-R2, R3 = EtSO2, CF3SO2) have been investigated as replacements to the known potent tetrazole moiety at the 2'-biphenyl position. Their activities were evaluated by AII receptor binding assay as well as by in vivo (i.v. and po) assays such as inhibition of the AII-induced pressor response in pithed rats. Most of the synthesized sulfonyl derivs. showed nanomolar affinity for the AT1 receptor subtype. The N-propylsulfonylurea I (R1 = Bu, R2 = Me, R3 = PrNHCO) (12d) and the sulfonylcarbamate I (R1 = Bu, R2 = Me, R3 = CO2Me) as representative members of this series exhibited high oral activity in the pithed rat model with ID50 values of 0.35 and 0.4 mg/kg, resp. Structure-activity relationships on the imidazole ring linked to the methylbiphenyl N-propylsulfonylurea fragment demonstrated similar features to those found in the corresponding tetrazole series. For both class of compds., the linear Bu chain in position 2 and a carboxylic acid in position 5 were important for high in vitro and in vivo activity. In most cases, replacement of the carboxylic acid was detrimental to in vivo activity while maintaining the in vitro binding affinity. Introduction of a thiomethyl group was found to enhance oral activity compared to compds. with chloro or other alkylthio, (polyfluoroalkyl)thio, and arylthio groups. Compd. 12d as the most promising example of the series was synthesized as its dipotassium salt (HR 720). This compd. inhibited the specific binding of [¹²⁵I]AII to rat liver membranes with an IC50 value of 0.48 nM. In vivo, HR 720 dose-dependently inhibited the AII-induced pressor response in normotensive pithed rats (ID50 = 0.11 mg/kg i.v. and 0.7 mg/kg po). In addn., this compd. produced a marked and long-lasting decrease in blood pressure in high renin animal models and proved to be superior to the corresponding tetrazolylbiphenyl deriv. as well as to DuP 753 or its active metabolite EXP 3174. HR 720 has been selected for in-depth investigations and is **currently** undergoing phase II clin. trials.
- ST HR 720 prepn angiotensin receptor antagonist; imidazolyl biphenylsulfonylurea prepn angiotensin receptor inhibitor; sulfonylurea imidazolylmethylbiphenyl prepn angiotensin receptor antagonist; antihypertensive imidazolylmethylbiphenylsulfonylurea
- IT Molecular structure-biological activity relationship

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(antihypertensives; prepn. of [[(imidazolylmethyl)biphenyl]sulfonyl]urea deriv.and related compds. as non-tetrazole angiotensin II receptor antagonists)

IT Antihypertensives

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of [[(imidazolylmethyl)biphenyl]sulfonyl]urea deriv.and related compds. as non-tetrazole angiotensin II receptor antagonists)

IT Receptors

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(angiotensin II, prepn. of [[(imidazolylmethyl)biphenyl]sulfonyl]urea deriv.and related compds. as non-tetrazole angiotensin II receptor antagonists)

IT 164412-49-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(prepn. of [[(imidazolylmethyl)biphenyl]sulfonyl]urea deriv.and related compds. as non-tetrazole angiotensin II receptor antagonists)

IT 144628-51-3P 144628-52-4P 144629-51-6P 164412-37-7P 164412-68-4P
164412-70-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of [[(imidazolylmethyl)biphenyl]sulfonyl]urea deriv.and related compds. as non-tetrazole angiotensin II receptor antagonists)

IT 144628-03-5P 144628-58-0P 144629-08-3P 144629-14-1P 144629-18-5P
144629-38-9P 144629-40-3P 152623-08-0P 164412-30-0P 164412-31-1P
164412-32-2P 164412-33-3P 164412-34-4P 164412-35-5P 164412-36-6P
164412-38-8P 164412-39-9P 164412-40-2P 164412-41-3P 164412-42-4P
164412-43-5P 164412-44-6P 164412-45-7P 164412-46-8P 164412-47-9P
164412-50-4P 164412-51-5P 164412-52-6P **164412-53-7P**
164412-54-8P 164412-55-9P 164412-56-0P 164412-57-1P 164412-58-2P
164412-59-3P 164412-60-6P 164412-61-7P 164412-62-8P 164412-63-9P
164412-64-0P 164412-65-1P 164412-66-2P 164412-67-3P 164412-69-5P
164412-71-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(prepn. of [[(imidazolylmethyl)biphenyl]sulfonyl]urea deriv.and related compds. as non-tetrazole angiotensin II receptor antagonists)

IT 60-35-5, Acetamide, reactions 74-93-1, Methyl mercaptan, reactions
79-22-1, Methyl chloroformate 106-31-0, Butyric anhydride 109-73-9,
Butylamine, reactions 109-90-0, Ethyl isocyanate 110-78-1, Propyl
isocyanate 124-40-3, reactions 353-83-3, 2,2,2-Trifluoroethyl iodide
358-23-6 425-61-6 543-27-1, Isobutyl chloroformate 592-34-7, Butyl
chloroformate 594-44-5, Ethanesulfonyl chloride 616-34-2 624-83-9,
Methyl isocyanate 638-29-9, Pentanoyl chloride 1476-23-9, Allyl
isocyanate 2373-51-5, Chloromethyl methyl sulfide 3731-52-0,
3-(Aminomethyl)pyridine 3849-21-6 4637-24-5, Dmf dimethyl acetal
5720-05-8, p-Tolylboronic acid 7517-19-3 32683-02-6, Ethyl
aminocanoacetate 83857-96-9 92748-09-9 114772-40-6 119126-47-5
140917-48-2 152623-30-8 152623-34-2 164412-75-3 164412-76-4
164412-77-5 164412-78-6 164412-79-7 164412-80-0

RL: RCT (Reactant); RACT (Reactant or reagent)

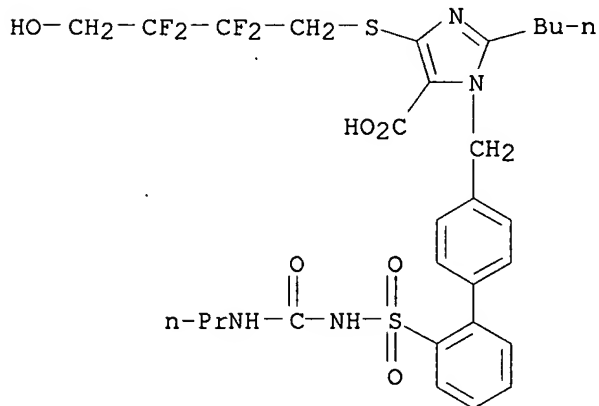
(prepn. of [[(imidazolylmethyl)biphenyl]sulfonyl]urea deriv.and

related compds. as non-tetrazole angiotensin II receptor antagonists)
 IT 78750-97-7P 137997-30-9P 139742-83-9P 140917-49-3P 142096-55-7P
 144629-13-0P 152623-31-9P 152623-35-3P 156972-88-2P 162649-12-9P
 162649-13-0P 164412-26-4P 164412-27-5P 164412-28-6P 164412-29-7P
 164412-48-0P 164412-81-1P 164412-82-2P 164412-83-3P 164412-85-5P
 164412-86-6P 164412-87-7P 164412-88-8P 164412-89-9P 164412-90-2P
 164412-91-3P 164412-92-4P **164412-93-5P** 164412-94-6P
 164412-95-7P 164412-96-8P 164412-97-9P 164412-99-1P 164413-00-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

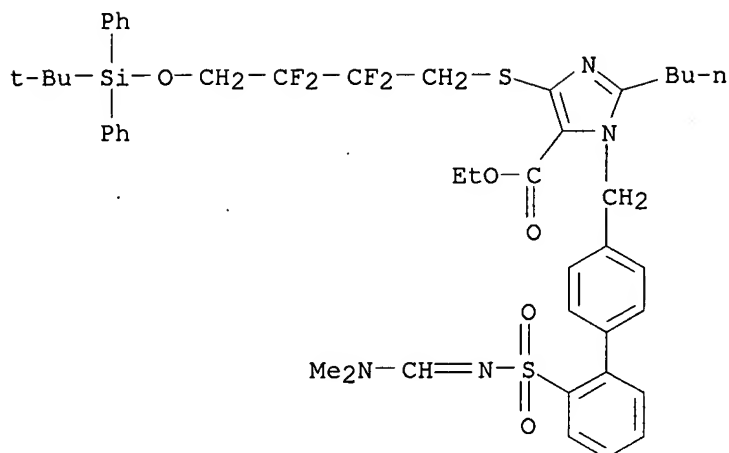
(prepn. of [[(imidazolylmethyl)biphenyl]sulfonyl]urea deriv.and
 related compds. as non-tetrazole angiotensin II receptor antagonists)
 IT 90566-07-7P 153235-15-5P 164412-72-0P 164412-73-1P 164412-74-2P
 164412-84-4P 164412-98-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of [[(imidazolylmethyl)biphenyl]sulfonyl]urea deriv.and
 related compds. as non-tetrazole angiotensin II receptor antagonists)
 IT **164412-53-7P**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation)

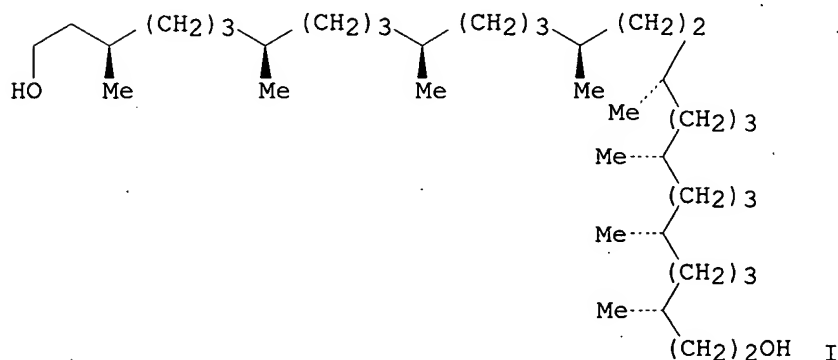
(prepn. of [[(imidazolylmethyl)biphenyl]sulfonyl]urea deriv.and
 related compds. as non-tetrazole angiotensin II receptor antagonists)
 RN 164412-53-7 HCAPLUS
 CN 1H-Imidazole-5-carboxylic acid, 2-butyl-1-[[2'-
 [[[(propylamino) carbonyl] amino] sulfonyl] [1,1'-biphenyl]-4-yl]methyl]-4-
 [(2,2,3,3-tetrafluoro-4-hydroxybutyl)thio]- (9CI) (CA INDEX NAME)



IT **164412-93-5P**
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. of [[(imidazolylmethyl)biphenyl]sulfonyl]urea deriv.and
 related compds. as non-tetrazole angiotensin II receptor antagonists)
 RN 164412-93-5 HCAPLUS
 CN 1H-Imidazole-5-carboxylic acid, 2-butyl-1-[[2'-
 [[[(dimethylamino) methylene] amino] sulfonyl] [1,1'-biphenyl]-4-yl]methyl]-4-
 [[4-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]-2,2,3,3-tetrafluorobutyl]thio]-
 , ethyl ester (9CI) (CA INDEX NAME)



L77 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 1994:107404 HCAPLUS
 DN 120:107404
 TI Total synthesis of the archaebacterial C40-diol and its enantiomer based
 on (R)-5-acetoxy-4-methylpentanoic acid
 AU Czeskis, Boris A.; Alexeev, Ivan G.; Moiseenkov, Alexander M.
 CS N. D. Zelinsky Inst. Org. Chem., Moscow, 117913, Russia
 SO Mendeleev Communications (1993), (3), 93-6
 CODEN: MENCEX; ISSN: 0959-9436
 DT Journal
 LA English
 CC 30-40 (Terpenes and Terpenoids)
 Section cross-reference(s): 33
 GI



AB **Optically** pure archaebacterial C40-diol I and its
 (3S,7S,11R,15R,18R,22R,26S,30S)-enantiomer have been synthesized in 17
 steps and ca. 2% overall yield using a readily available
 (R)-5-acetoxy-4-methylpentanoic acid as the single chiral building block.
 ST archaebacterial diol; acetoxymethylpentanoic acid archaebacterial diol
 synthesis

IT 152492-39-2P 152492-40-5P 152492-41-6P 152492-42-7P 152492-43-8P
 152492-44-9P
 RL: PREP (Preparation)
 (intermediate in synthesis of archaebacterial diol)

IT 152492-46-1 152492-47-2 152492-48-3 152492-49-4 152492-50-7
 152492-52-9 152492-54-1 152492-55-2 152492-56-3 152611-95-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (intermediate, synthesis of archaebacterial diol)

IT 152492-45-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (intermediate, synthesis of archaebacterial diol and enantiomer)

IT 152492-38-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and alkylation, synthesis of archaebacterial diol)

IT **152492-51-8P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn., synthesis of archaebacterial diol)

IT 152492-53-0P **152611-96-6P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn., synthesis of archaebacterial diol enantiomer)

IT 69097-01-4 110659-28-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant, in synthesis of archaebacterial diol)

IT 99529-30-3P 152611-97-7P
 RL: PREP (Preparation)
 (total synthesis)

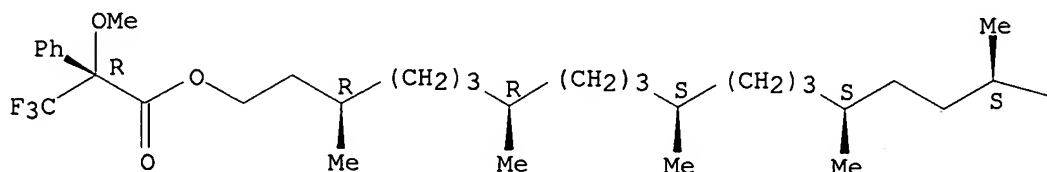
IT **152492-51-8P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn., synthesis of archaebacterial diol)

RN 152492-51-8 HCAPLUS

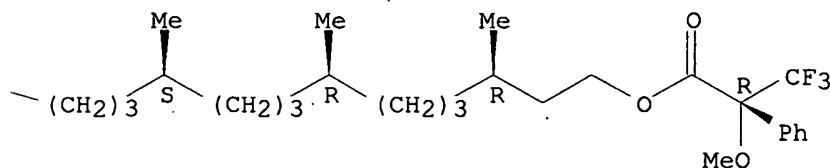
CN Benzeneacetic acid, .alpha.-methoxy-.alpha.-(trifluoromethyl)-,
 3,7,11,15,18,22,26,30-octamethyl-1,32-dotriacontanediyl ester,
 [3R-[1(R*),3R*,7R*,11S*,15S*,18S*,22S*,26R*,30R*,32(R*)]]- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IT **152611-96-6P**
 RL: SPN (Synthetic preparation); PREP (Preparation)

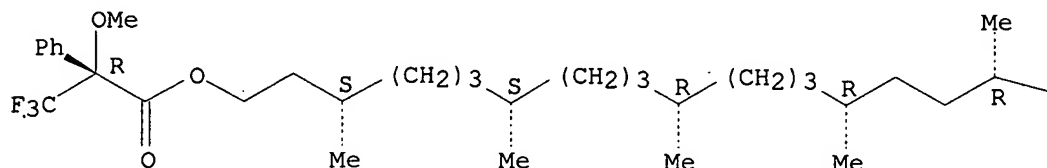
(prepn., synthesis of archaebacterial diol enantiomer)

RN 152611-96-6 HCAPLUS

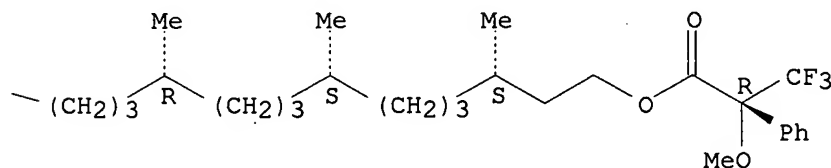
CN Benzeneacetic acid, .alpha.-methoxy-.alpha.-(trifluoromethyl)-,
3,7,11,15,18,22,26,30-octamethyl-1,32-dotriacontanediyl ester,
[3S-[1(S*),3R*,7R*,11S*,15S*,18S*,22S*,26R*,30R*,32(S*)]]- (9CI) (CA
INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

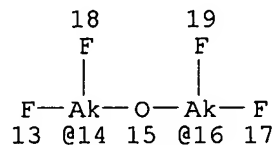


PAGE 1-B



=> D QUE
L42

STR



2nd Search.
Searched monomers
of polymer

F-Ak-F
10 @11 12

Cy-G1-CH2-G2-CH2-G1
1 2 3 4 5 6

F-Cb-F
7 @8 9

VAR G1=O/S

VAR G2=11/14-3 16-5/8

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 1

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L44 SCR 1971 AND 1838

L50 321 SEA FILE=REGISTRY SSS FUL L42 AND L44

L51 STR

G1—CH2G3—CH2G1—Cy—G1—CH2G2—CH2G1 F—Cb—F
24 23 22 21 20 1 2 3 4 5 6 7 @8 9

18 19
F—Ak—F F F
10 @11 12
F—Ak—O—Ak—F
13 @14 15 @16 17

VAR G1=O/S

VAR G2=11/14-3 16-5/8

VAR G3=8/11/14-23 16-21

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 1

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L53 41 SEA FILE=REGISTRY SUB=L50 SSS FUL L51

L54 28 SEA FILE=HCAPLUS ABB=ON L53

L55 3 SEA FILE=HCAPLUS ABB=ON L54 AND OPTIC?

L56 0 SEA FILE=HCAPLUS ABB=ON L54 AND CUR? (3A) ENERG?

L57 0 SEA FILE=HCAPLUS ABB=ON L54 AND CUR?

L59 86 SEA FILE=HCAPLUS ABB=ON L50

L60 2 SEA FILE=HCAPLUS ABB=ON L59 AND CUR?

L61 STR

Cy 1

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 1

DEFAULT ECLEVEL IS LIMITED

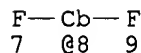
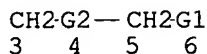
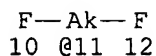
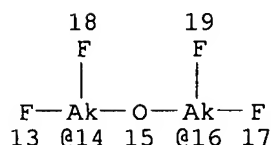
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 1

STEREO ATTRIBUTES: NONE

L62 STR



VAR G1=O/S

VAR G2=11/14-3 16-5/8

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L64 SCR 2043

L66 442 SEA FILE=REGISTRY SSS FUL L61 AND L62 AND L64

L67 174 SEA FILE=HCAPLUS ABB=ON L66

L70 5 SEA FILE=HCAPLUS ABB=ON L67(L)CUR?(L)(LIGHT? OR RADIAT? OR
XRAY? OR UV OR ULTRAVIOLET OR ULTRA(W)VIOLET OR IR OR INFRARED?
OR ENERGY?)

L74 27 SEA FILE=HCAPLUS ABB=ON L67 AND OPTIC?(6A)POLYMER?

L75 4 SEA FILE=HCAPLUS ABB=ON L74 AND CUR?

L76 8 SEA FILE=HCAPLUS ABB=ON L70 OR L75

L77 5 SEA FILE=HCAPLUS ABB=ON (L55 OR L56 OR L57) OR L60

L78 8 SEA FILE=HCAPLUS ABB=ON L76 NOT L77

=> D L78 ALL 1-8 HITSTR

L78 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:808924 HCAPLUS

DN 138:138821

TI High performance UV-cured coatings for wood protection

AU Bongiovanni, R.; Montefusco, F.; Priola, A.; Macchioni, N.; Lazzeri, S.;
Sozzi, L.; Ameduri, B.

CS Dipartimento di Scienza dei Materiali e Ingegneria Chimica, Politecnico di
Torino, Turin, 24 10129, Italy

SO Progress in Organic Coatings (2002), 45(4), 359-363
CODEN: POGCAT; ISSN: 0300-9440

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

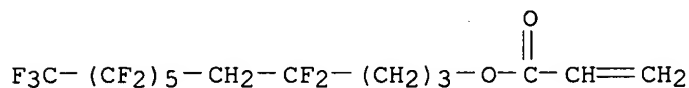
PB Elsevier Science B.V.
 DT Journal
 LA English
 CC 42-4 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 43
 AB UV-curable systems based on the copolymn. of a typical acrylic resin with a low amt. of a fluorinated monomer (<1%, wt./wt.) were used for the protection of wood panels. In the presence of the additives, the bulk properties and the adhesion of the acrylic films were unchanged, while a strong modification of the surface was obtained. The quality aspects and the chem. resistance of the coatings applied to the wood panels were also enhanced.
 ST fluorinated acrylic UV curable wood protection coating performance
 IT Coating materials
 (UV-curable; from acrylic coatings contg. fluorinated monomer for wood protection)
 IT Coating materials
 (chem. resistant; from acrylic coatings contg. fluorinated monomer for wood protection)
 IT Adhesive bonding
 (gluing; of UV-curable fluorinated acrylic coatings to wood substrate)
 IT Surface structure
 (of UV-curable fluorinated acrylic coatings bonded to wood substrate)
 IT Wettability
 (of UV-curable fluorinated acrylic coatings for wood protection)
 IT Wood
 (protection using acrylic coatings contg. fluorinated monomer)
 IT 493046-04-1P **493046-06-3P** 493046-08-5P
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (performance of **UV-curable** acrylic coatings contg. fluorinated monomer for wood protection)
 RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Ameduri, B; J Polym Sci A 1999, V37, P77 HCAPLUS
 (2) Ameduri, B; J Polym Sci A 2001, V39, P4227 HCAPLUS
 (3) Ameduri, B; in preparation
 (4) Anon; Radiation Curing, Science and Technology 1992
 (5) Berti, S; Researches on the Use of Secondary Quality Wood in Italy: Production of Solid Wood Panels 1998, P583
 (6) Berti, S; Utilizing secondary quality of wood: manufacturing and testing chestnut solid wood panels 1994
 (7) Bongiovanni, R; J Colloid Interf Sci 1996, V182, P511
 (8) Bongiovanni, R; Macromol Chem Phys 1998, V199, P1099 HCAPLUS
 (9) Bongiovanni, R; Polym Adv Technol 1996, V7, P403 HCAPLUS
 (10) Bongiovanni, R; Polymer 2000, V41, P409 HCAPLUS
 (11) Fouassier, J; Radiation Curing in Polymer Science and Technology 1993, V1-4
 (12) Thomas, R; Fluoropolymers 2: Properties 1999
 (13) Willoughby, B; Encyclopedia of Advanced Materials 1994
 (14) Wu, S; Polymer Interface and Adhesion 1982
 IT **493046-06-3P**
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (performance of **UV-curable** acrylic coatings contg. fluorinated monomer for wood protection)
 RN 493046-06-3 HCAPLUS
 CN 2-Propenoic acid, 1,2-ethanediyl ester, polymer with 4,4'-(1-

methylethylidene)bis[phenol] and 4,4,6,6,7,7,8,8,9,9,10,10,11,11,11-pentadecafluoroundecyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 493046-05-2

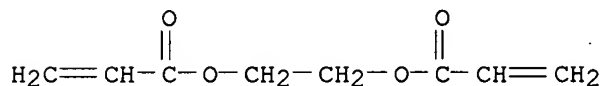
CMF C14 H11 F15 O2



CM 2

CRN 2274-11-5

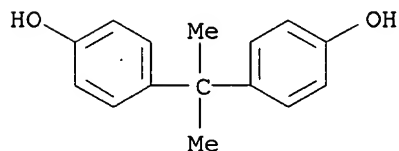
CMF C8 H10 O4



CM 3

CRN 80-05-7

CMF C15 H16 O2



L78 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:553159 HCAPLUS

DN 137:110254

TI Radiation-curable acrylic fluoropolymer compositions with low refractive index

IN Takano, Kiyoshi; Yamaguchi, Hirofumi; Yamaoka, Seiji; Kinoshita, Hiroshi

PA Dainippon Ink and Chemicals, Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F220-24

ICS G02B001-04; G02B006-00; G02B006-12

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 73

FAN.CNT 1

PATENT NO.

KIND DATE

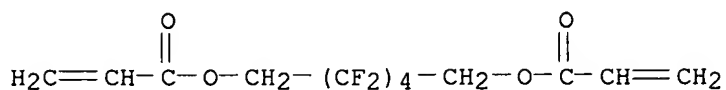
APPLICATION NO. DATE

PI JP 2002206010 A2 20020726 JP 2001-191121 20010625
PRAI JP 2000-341784 A 20001109
AB The compns., having refractive index of .ltoreq.1.45 and Shore D hardness of .gtoreq.80 after curing, contain CH₂:CR1CO₂(CH₂)_k(CF₂)_l(CH₂)_kO₂CCR1:CH₂ (R1 = H, Me, F, Cl; k = 1, 2; l = 1-20) and other monomers bearing (meth)acryloyl groups. Thus, a compn. comprising CH₂:CHCO₂CH₂(CF₂)₄CH₂O₂CCH:CH₂ 98.5, .gamma.-acryloxypropyltrimethoxysilane 1.0, and photoinitiator 0.5 part was cured by UV-irradn. to give a test piece showing refractive index 1.430 and Shore D hardness 88. Then, a lens comprising sequential layers of a quartz glass, a high refractive layer manuf. by curing a reaction product of 2-hydroxyethyl acrylate with 2-butyl-2-ethylpropanediol-4,4'-MDI copolymer, a low refractive layer manuf. by curing the compn., and a quartz glass showed good heat and solvent resistance.
ST radiation curable acrylic fluoropolymer lens; heat resistance acrylic fluoropolymer lens; solvent resistance acrylic fluoropolymer lens
IT Polyurethanes, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, high refractive layers; radiation-curable fluorine-contg. acrylic polymer compns. with low refractive index for lenses)
IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic; radiation-curable fluorine-contg. acrylic polymer compns. with low refractive index for lenses)
IT Lenses
(radiation-curable fluorine-contg. acrylic polymer compns. with low refractive index for)
IT 818-61-1DP, 2-Hydroxyethyl acrylate, reaction product with polyurethane, homopolymer 132827-69-1DP, 2-Butyl-2-ethyl-1,3-propanediol-4,4'-MDI copolymer, reaction product with 2-hydroxyethyl acrylate, homopolymer
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(high refractive layers; radiation-curable fluorine-contg. acrylic polymer compns. with low refractive index for lenses)
IT 140127-74-8P 443790-94-1P, .gamma.-Acryloxypropyltrimethoxysilane-2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediol diacrylate copolymer
443790-95-2P 443790-96-3P 443790-97-4P 443790-98-5P
443790-99-6P 443791-01-3P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**radiation-curable** fluorine-contg. acrylic polymer compns. with low refractive index for lenses)
IT 443790-95-2P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**radiation-curable** fluorine-contg. acrylic polymer compns. with low refractive index for lenses)
RN 443790-95-2 HCAPLUS
CN 2-Propenoic acid, 2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediyl ester, 3a,4,7,7a,?,?-hexahydro-4,7-methano-1H-indenyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 2264-01-9

CMF C12 H10 F8 O4



CM 2

CRN 12542-30-2

CMF C13 H16 O2

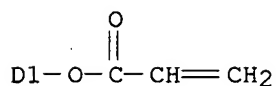
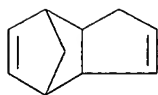
CCI IDS

CM 3

CRN 50976-02-8

CMF C13 H14 O2

CCI IDS



L78 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1995:272863 HCAPLUS

DN 122:118464

TI Nonlinear optical fiber elements

IN Uemura, Takafumi; Uenishi, Naota

PA Sumitomo Electric Industries, Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G02F001-37

ICS G02B006-10; G02B006-16

CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06088978	A2	19940329	JP 1992-236132	19920903
PRAI	JP 1992-236132		19920903		

AB The title element comprises: a nonlinear org. crystal grown in a glass capillary tube by gradient heating; (1) a buffer layer contg. a silane coupler; (2) a fluoropolymer moisture-barrier layer; and (3) an optional protective layer, wherein (1)-(3) are formed on the facet(s); (1) and (2) may form an antireflective bilayer, and (3) may form a (prismatic)

focussing lens. The element has a long-life stability in harsh environments.

ST nonlinear crystal capillary grown protective coating

IT Fluoropolymers

RL: DEV (Device component use); USES (Uses)

(UV-curable facet coatings from, as moisture barrier, on capillary-grown nonlinear org. crystals)

IT Silanes

RL: DEV (Device component use); USES (Uses)

(couplers, facet-coating buffer layers from, on capillary-grown nonlinear org. crystal)

IT Optical materials

(nonlinear org. crystals, grown in glass capillary, with protective facet coatings)

IT 160701-49-5

RL: DEV (Device component use); USES (Uses)

(UV-curable facet coatings from, as moisture barrier, on capillary-grown nonlinear org. crystals)

IT 5367-36-2 13788-94-8, 3,5-Dimethyl-1-(4-nitrophenyl)pyrazole

RL: DEV (Device component use); USES (Uses)

(nonlinear crystals from, capillary grown, with moisture-barrier-coated facets)

IT 1344-28-1, Alumina, uses 7631-86-9, Silica, uses

RL: DEV (Device component use); USES (Uses)

(protective plasma coatings from, on capillary-grown nonlinear org. crystals)

IT 160701-49-5

RL: DEV (Device component use); USES (Uses)

(UV-curable facet coatings from, as moisture barrier, on capillary-grown nonlinear org. crystals)

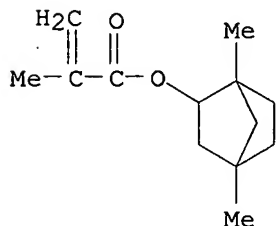
RN 160701-49-5 HCAPLUS

CM 2-Propenoic acid, 2-methyl-, 1,4-dimethylbicyclo[2.2.1]hept-2-yl ester, polymer with 2,2-dimethyl-1,3-propanediyl di-2-propenoate, 2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1,8-octanediyl di-2-propenoate, 2-ethyl-2-[[1-(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl 2-methyl-2-propenoate and 3a,4,5,6,7,7a-hexahydro-4,7-methano-1H-inden-5(or 6)-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

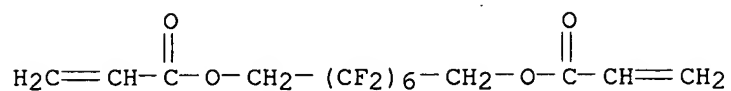
CRN 160701-48-4

CMF C13 H20 O2



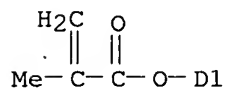
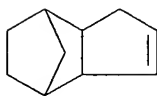
CM 2

CRN 127194-99-4
CMF C14 H10 F12 O4



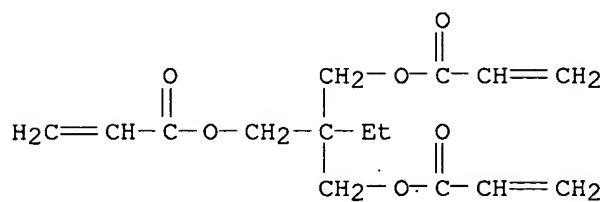
CM 3

CRN 31621-69-9
CMF C14 H18 O2
CCI IDS



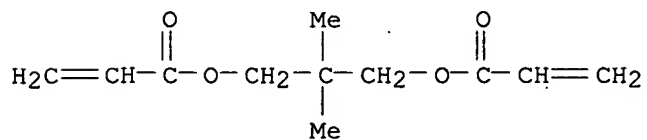
CM .4

CRN 15625-89-5
CMF C15 H20 O6



CM 5

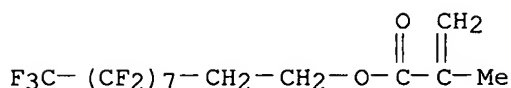
CRN 2223-82-7
CMF C11 H16 O4



CM 6

CRN 1996-88-9

CMF C14 H9 F17 O2



L78 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1992:409914 HCAPLUS

DN 117:9914

TI Fluoro(meth)acrylate esters and their coatings for heat-resistant optical fibers

IN Yokoshima, Minoru

PA Nippon Kayaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07C069-653

ICS C03C025-02; C08F020-22; C09D004-02; G02B006-44

CC 42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 35, 73

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03215453	A2	19910920	JP 1990-8154	19900119
	JP 2801719	B2	19980921		
PRAI	JP 1990-8154		19900119		
OS	MARPAT 117:9914				
AB	The title (meth)acrylates are QO(CH ₂) ₂ (CF ₂) ₄ (CH ₂) ₂ OQ [I; Q = CH ₂ :CR(CO ₂ CH ₂ CH(OH)CH ₂ O, R = H, Me]. Thus, 3:97 mixt. of Irgocure 184 and I [R = H; from acrylic acid, epichlorohydrin, and HO(CH ₂) ₂ (CF ₂) ₄ (CH ₂) ₂ OH] showed water absorption 0.5% and elongation at break 51% (23.degree.) initially and 50% after 1 mo at 150.degree., which was used to coat on optical fibers and cured with UV rays to give fibers without any transmission loss at 150.degree. for 1 mo.				
ST	heat resistant coating optical fiber; fluoro acrylic coating optical fiber; octafluorooctanediol epoxidized diacrylate polymer coating				
IT	Optical fibers (heat-resistant coatings for, epoxidized octafluorooctanediol di(meth)acrylate polymers as)				
IT	Fluoropolymers RL: TEM (Technical or engineered material use); USES (Uses) (epoxy, acrylates, coatings, heat-resistant, for optical fibers)				
IT	Acrylic polymers, preparation RL: PREP (Preparation) (fluorine-contg., epoxidized, heat-resistant coatings, for optical fibers)				
IT	Epoxy resins, compounds RL: TEM (Technical or engineered material use); USES (Uses) (fluorine-contg., acrylates, coatings, heat-resistant, for optical fibers)				

IT Coating materials
 (heat-resistant, octafluorooctanediol diepichlorohydrin ether
 di(meth)acrylate **polymers**, for **optical** fibers)

IT 139011-87-3 **139011-90-8 139011-91-9**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, heat-resistant, for optical fibers)

IT 79-10-7, Acrylic acid, reactions 79-41-4, Methacrylic acid, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (esterification of, with epoxidized octafluorooctanediols)

IT 83192-87-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (etherification of, with epichlorohydrin)

IT 106-89-8, Epichlorohydrin, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (etherification of, with octafluorooctanediol)

IT 139011-88-4P 139011-89-5P
 RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and **polymn.** of, for coatings for **optical**
 fibers)

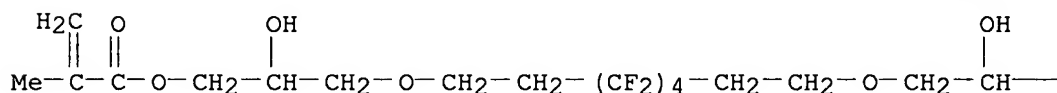
IT **139011-90-8 139011-91-9**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (coatings, heat-resistant, for optical fibers)

RN 139011-90-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, (3,3,4,4,5,5,6,6-octafluoro-1,8-
 octanediyl)bis[oxy(2-hydroxy-3,1-propanediyl)] ester, polymer with
 (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol]
 2-propenoate and (3,3,4,4,5,5,6,6-octafluoro-1,8-octanediyl)bis[oxy(2-
 hydroxy-3,1-propanediyl)] di-2-propenoate (9CI) (CA INDEX NAME)

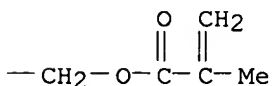
CM 1

CRN 139011-89-5
 CMF C22 H30 F8 O8

PAGE 1-A



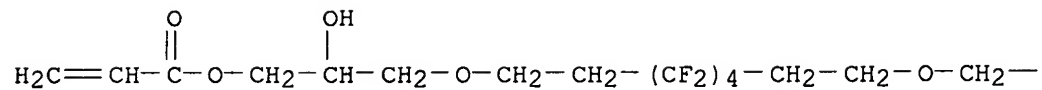
PAGE 1-B



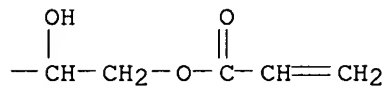
CM 2

CRN 139011-88-4
 CMF C20 H26 F8 O8

PAGE 1-A



PAGE 1-B



CM 3

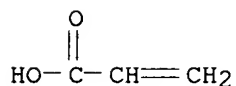
CRN 55818-57-0

CMF (C15 H16 O2 . C3 H5 Cl O)x . x C3 H4 O2

CM 4

CRN 79-10-7

CMF C3 H4 O2



CM 5

CRN 25068-38-6

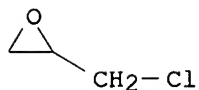
CMF (C15 H16 O2 . C3 H5 Cl O)x

CCI PMS

CM 6

CRN 106-89-8

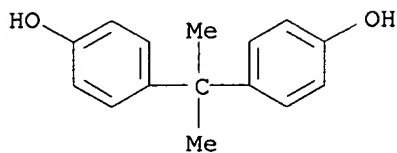
CMF C3 H5 Cl O



CM 7

CRN 80-05-7

CMF C15 H16 O2



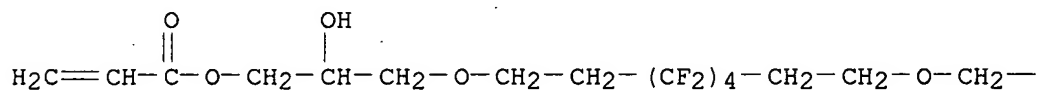
RN 139011-91-9 HCAPLUS
 CN 2-Propenoic acid, (3,3,4,4,5,5,6,6-octafluoro-1,8-octanediyl)bis[oxy(2-hydroxy-3,1-propanediyl)] ester, polymer with (chloromethyl)oxirane
 polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-propenoate (9CI) (CA
 INDEX NAME)

CM 1

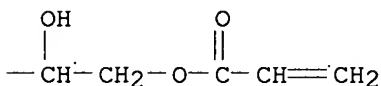
CRN 139011-88-4

CMF C20 H26 F8 O8

PAGE 1-A



PAGE 1-B



CM 2

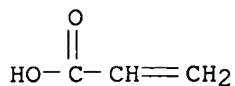
CRN 55818-57-0

CMF (C15 H16 O2 . C3 H5 Cl O)x . x C3 H4 O2

CM 3

CRN 79-10-7

CMF C3 H4 O2



CM 4

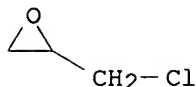
CRN 25068-38-6

CMF (C15 H16 O2 . C3 H5 Cl O)x

CCI PMS

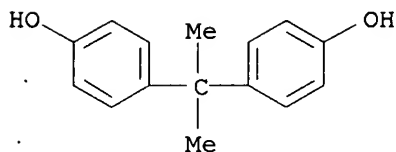
CM 5

CRN 106-89-8
CMF C3 H5 Cl O



CM 6

CRN 80-05-7
CMF C15 H16 O2



L78 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1992:215926 HCAPLUS
DN 116:215926
TI Broad-band high-numerical aperture plastic-clad optical fibers
IN Nishimoto, Hiroaki; Mishima, Takayuki
PA Sumitomo Electric Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM. G02B006-18
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 73

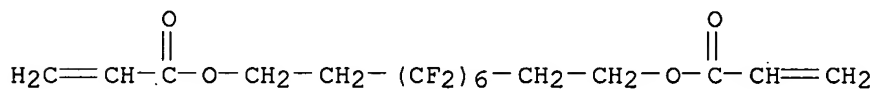
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03245108	A2	19911031	JP 1990-43402	19900223
	JP 3132729	B2	20010205		
	US 5123076	A	19920616	US 1991-658876	19910222
PRAI	JP 1990-43402	A	19900223		

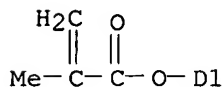
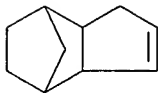
AB The title optical fibers satisfy conditions of (1) n of the **cured** clad resin at practical wavelength is 97-98.5% that of edge of the core, (2) light transmission of the **cured** clad resin at a practical wavelength 500-4000 dB/km, and (3) linear expansion coeff. of the **cured** clad resin .ltoreq.2.0 .times..10-4/.degree.C. Thus, an optical fiber comprising Ge-doped quartz core and fluorinated acrylate polymer clad had core n 1.474 (at center) and 1.455 (at edge), clad n 1.420, clad light transmission 2960 dB/km, clad linear expansion coeff. 0.00013/.degree.C, transmission band 89 MHz, and transmission loss 6.22 dB.

ST broad band optical fiber; high numerical aperture optical fiber; glass core optical fiber; fluorinated acrylate **polymer optical**

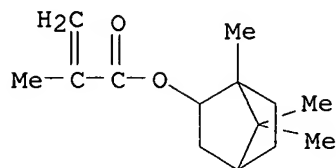
fiber
 IT Glass, oxide
 RL: USES (Uses)
 (cores for broad-band high-numerical-aperture optical fibers, with plastic clads)
 IT Optical fibers
 (core-sheath, glass core/plastic clad, broad-band and high-numerical aperture)
 IT 140387-36-6 140708-86-7 **141197-31-1**
 RL: USES (Uses)
 (clads for broad-band high-numerical aperture optical fibers)
 IT **141197-31-1**
 RL: USES (Uses)
 (clads for broad-band high-numerical aperture optical fibers)
 RN 141197-31-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl ester, polymer with 2,2-dimethyl-1,3-propanediyl di-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8-dodecafluoro-1,10-decanediyl di-2-propenoate, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 3a,4,5,6,7,7a-hexahydro-4,7-methano-1H-inden-5(or 6)-yl 2-methyl-2-propenoate and 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 115137-52-5
 CMF C16 H14 F12 O4



CM 2
 CRN 31621-69-9
 CMF C14 H18 O2
 CCI IDS



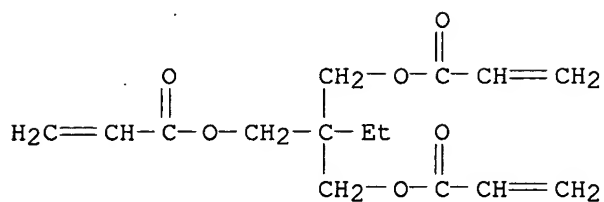
CM 3
 CRN 16868-12-5
 CMF C14 H22 O2



CM 4

CRN 15625-89-5

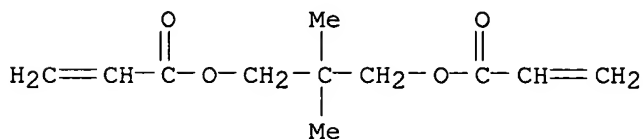
CMF C15 H20 O6



CM 5

CRN 2223-82-7

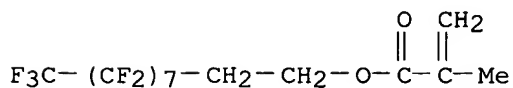
CMF C11 H16 O4



CM 6

CRN 1996-88-9

CMF C14 H9 F17 O2



L78 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1992:42792 HCAPLUS

DN 116:42792

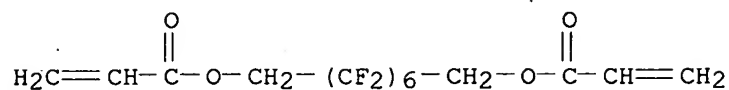
TI Photocurable cladding compositions for quartz and glass optical fibers

IN Mishima, Takayuki; Okuda, Yasuhiro; Nishimoto, Hiroaki

PA Sumitomo Electric Industries, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08F220-20
 ICS C08F002-46; C08F220-36; C09D004-00; C09D004-02; G02B006-00
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 73

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03182510	A2	19910808	JP 1989-324502	19891212
PRAI	JP 1989-324502		19891212		
AB	The title compns., with good strength, adhesion to cores, and peelability for processing and mixing with other devices, comprise polyenes and, or polyurethane acrylates, photoinitiators, and, optionally, satd. coupling agents. Thus, a mixt. of a polymer bearing 3-acryloyloxy-2-hydroxypropyl and 2-(perfluorooctyl)ethyl ester groups 10, 2-(perfluorooctyl)ethyl acrylate 65, neopentyl glycol diacrylate 15, trimethylolpropane triacrylate 5, and photoinitiator 5 parts was coated on 200-.mu.m quartz optical fibers to outer diam. 230 .mu.m, cured by UV, and coated with C2H4-C2F4 copolymer to give fibers with good processability, interlayer bonding, and hot-cold cycle resistance.				
ST	optical fiber coating; acrylate polymer coating; photocurable coating				
IT	Optical fibers (photocurable polyurethane acrylate sheaths for)				
IT	2223-82-7D, polymers with urethane acrylates 4098-71-9D, polymers with polyolas and fluoroalkyl acrylates 27905-45-9D, polymers with urethane acrylates 115137-52-5D, polymers with urethane acrylates 118643-50-8D, polymers with urethane acrylates 127194-98-3 127195-00-0 137031-61-9D, polymers with urethane acrylates 137031-62-0D, polymers with urethane acrylates 137160-37-3D, polymers with urethane acrylates 138052-64-9 138052-65-0 138126-43-9 138381-81-4 RL: USES (Uses) (claddings for optical fibers, UV-curable)				
IT	138052-65-0 138126-43-9 RL: USES (Uses) (claddings for optical fibers, UV-curable)				
RN	138052-65-0 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, 3a,4,5,6,7,7a-hexahydro-4,7-methano-1H-inden-5(or 6)-yl ester, polymer with 2,2-dimethyl-1,3-propanediyl di-2-propenoate, 2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1,8-octanediyl di-2-propenoate and 2-ethyl-2-[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)				
CM	1				
CRN	127194-99-4				
CMF	C14 H10 F12 O4				

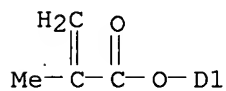
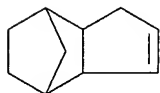


CM 2

CRN 31621-69-9

CMF C14 H18 O2

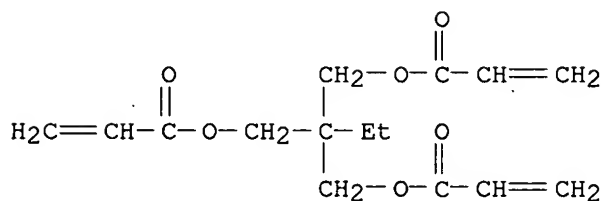
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CM 3

CRN 15625-89-5

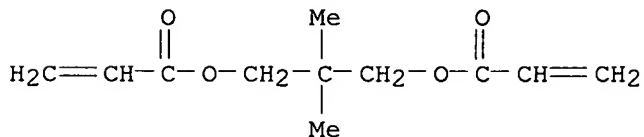
CMF C15 H20 O6



CM 4

CRN 2223-82-7

CMF C11 H16 O4



RN 138126-43-9 HCAPLUS

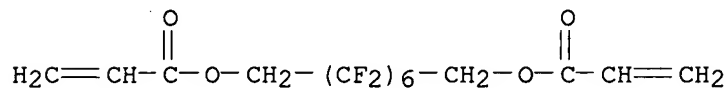
CN 2-Propenoic acid, 2-methyl-, 2-hydroxy-1,3-propanediyl ester, polymer with
2,2-dimethyl-1,3-propanediyl di-2-propenoate, 2,2,3,3,4,4,5,5,6,6,7,7-

dodecafluoro-1,8-octanediyl di-2-propenoate, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 3a,4,5,6,7,7a-hexahydro-4,7-methano-1H-inden-5(or 6)-yl 2-methyl-2-propenoate and 1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 127194-99-4

CMF C14 H10 F12 O4

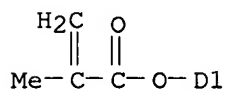
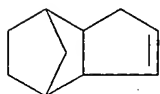


CM 2

CRN 31621-69-9

CMF C14 H18 O2

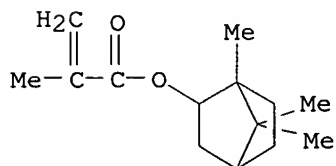
CCI IDS



CM 3

CRN 16868-12-5

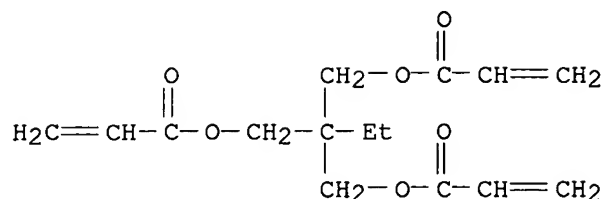
CMF C14 H22 O2



CM 4

CRN 15625-89-5

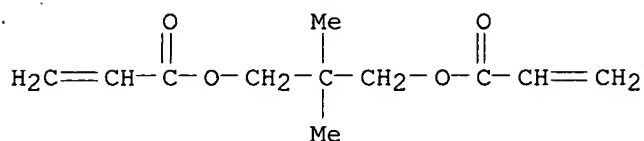
CMF C15 H20 O6



CM 5

CRN 2223-82-7

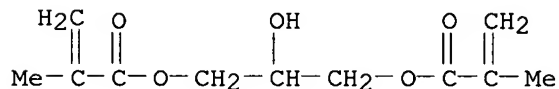
CMF C11 H16 O4



CM 6

CRN 1830-78-0

CMF C11 H16 O5



L78 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1992:7996 HCAPLUS

DN 116:7996

TI Resin compositions and heat-resistant coatings for optical fibers

IN Yokoshima, Minoru; Matsumoto, Kanichi

PA Nippon Kayaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F220-26

ICS C03C025-02; C08F220-22; C08F299-02; C09D004-00; C09D004-02;

G02B006-44

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 57

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03068609	A2	19910325	JP 1989-203796	19890808
PRAI	JP 1989-203796		19890808		

AB The compns. and the coatings, esp. useful for applying on glass optical fibers used in high temp., comprise epoxy acrylates,

CH₂:CRCO₂(CH₂)_a(CF₂)₄(CH₂)_bOCOCR:CH₂ (R = H, Me; a, b = 1, 2), and imide acrylates. Thus, Epikote 828 acrylate 30, a reaction product of HO(CH₂)₂(CF₂)₂(CH₂)₂OH and acrylic acid (I) 50, a product prep'd. from phthalic acid, 3-amino-1-butanol, and I 20, and Irgacure 184 3 parts were mixed to give a compn., whose **cured** sheet showed Young's modulus at 23.degree. 117 kg/mm² initially and 118 kg/mm² after 1 mo at 150.degree.. The compn. was applied on glass optical fiber and UV-**cured** to show no change of transmission loss after 1 mo at 150.degree..

ST optical glass fiber resin coating; acrylate polymer coating glass fiber

IT **Optical fibers**

(coating of, acrylic **polymers** for, heat-resistant)

IT Coating materials

(heat-resistant, acrylic **polymers**, prep'n. of, on glass **optical fibers**)

IT 55818-57-0, Epikote 828 acrylate

RL: USES (Uses)

(coatings contg., for glass optical fibers)

IT **137853-66-8P 137853-67-9P 137914-67-1P**

137914-68-2P

RL: TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coatings, prep'n. of, on glass optical fibers, heat-resistant)

IT 86752-95-6P 106646-48-4P 126121-41-3P 126121-42-4P 137799-19-0P

137799-20-3P

RL: PREP (Preparation)

(prep'n. of, for manuf. of acrylic polymer coatings)

IT **137853-66-8P 137853-67-9P 137914-67-1P**

137914-68-2P

RL: TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(coatings, prep'n. of, on glass optical fibers, heat-resistant)

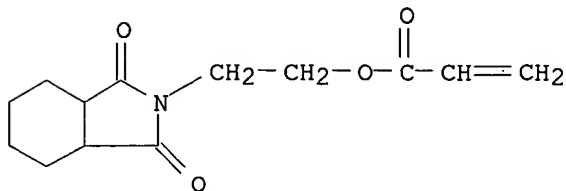
RN 137853-66-8 HCAPLUS

CN 2-Propenoic acid, 2-(octahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl ester, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-propenoate, and 3,3,4,4,5,5,6,6-octafluoro-1,8-octanediol 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 106646-48-4

CMF C13 H17 N O4



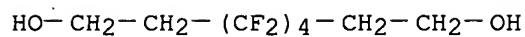
CM 2

CRN 137799-20-3

CMF C8 H10 F8 O2 . x C3 H4 O2

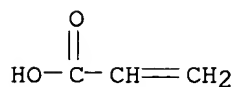
CM 3

CRN 83192-87-4
CMF C8 H10 F8 O2



CM 4

CRN 79-10-7
CMF C3 H4 O2

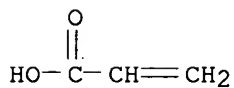


CM 5

CRN 55818-57-0
CMF (C15 H16 O2 . C3 H5 Cl O)x . x C3 H4 O2

CM 6

CRN 79-10-7
CMF C3 H4 O2

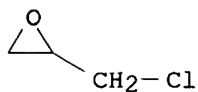


CM 7

CRN 25068-38-6
CMF (C15 H16 O2 . C3 H5 Cl O)x
CCI PMS

CM 8

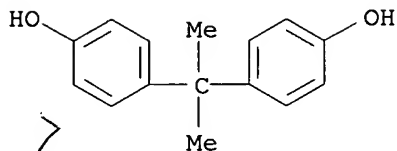
CRN 106-89-8
CMF C3 H5 Cl O



CM 9

CRN 80-05-7

CMF C15 H16 O2



RN 137853-67-9 HCAPLUS

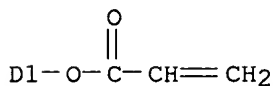
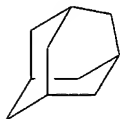
CN 2-Propenoic acid, 2-(octahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl ester, polymer with (chloromethyl)oxirane polymer with methylenebis[phenol] 2-propenoate, 2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediol 2-propenoate and tricyclo[3.3.1.1^{3,7}]decyl 2-propenoate (9CI) (CA INDEX NAME).

CM 1

CRN 129090-25-1

CMF C13 H18 O2

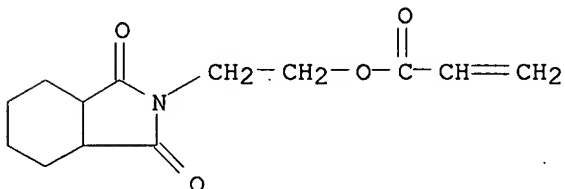
CCI IDS



CM 2

CRN 106646-48-4

CMF C13 H17 N O4



CM 3

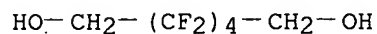
CRN 137799-19-0

CMF C6 H6 F8 O2 . x C3 H4 O2

CM 4

CRN 355-74-8

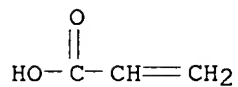
CMF C6 H6 F8 O2



CM 5

CRN 79-10-7

CMF C3 H4 O2



CM 6

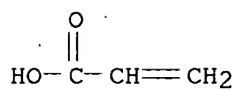
CRN 86752-95-6

CMF (C13 H12 O2 . C3 H5 Cl O)x . x C3 H4 O2

CM 7

CRN 79-10-7

CMF C3 H4 O2



CM 8

CRN 58421-55-9

CMF (C13 H12 O2 . C3 H5 Cl O)x

CCI PMS

CM 9

CRN 1333-16-0

CMF C13 H12 O2

CCI IDS



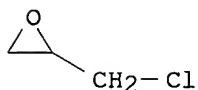
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$1/2 [D1-CH_2-D1]$

CM 10

CRN 106-89-8

CMF C3 H5 Cl O



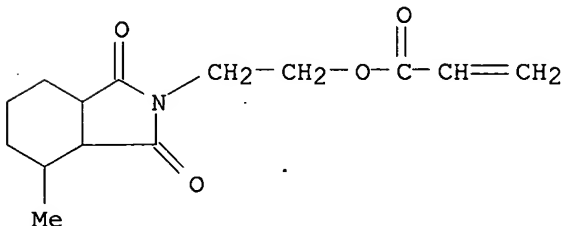
RN 137914-67-1 HCAPLUS

CN 2-Propenoic acid, 2-(octahydro-4-methyl-1,3-dioxo-2H-isoindol-2-yl)ethyl ester, polymer with (chloromethyl)oxirane polymer with 4,4'-(1-methylethylidene)bis[phenol] 2-propenoate, .alpha.-hydro-.omega.-[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)] diester with 3-hydroxy-2,2-dimethyl-3-hydroxy-2,2-dimethylpropanoate, and 3,3,4,4,5,5,6,6-octafluoro-1,8-octanediol 2-propenoate (9CI) (CA INDEX NAME)

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CRN 126121-41-3

CMF C14 H19 N O4



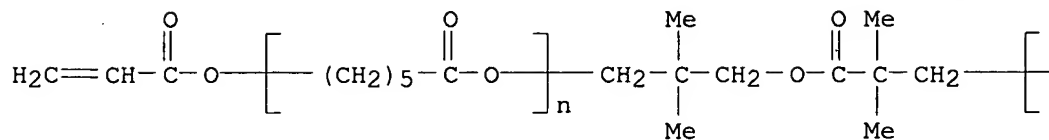
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CRN 102903-35-5

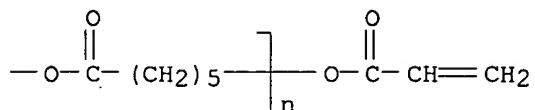
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CCI PMS

PAGE 1-A



PAGE 1-B



CM 3

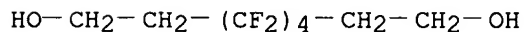
CRN 137799-20-3

CMF C8 H10 F8 O2 . x C3 H4 O2

CM 4

CRN 83192-87-4

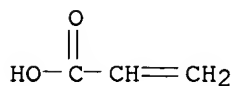
CMF C8 H10 F8 O2



CM 5

CRN 79-10-7

CMF C3 H4 O2



CM 6

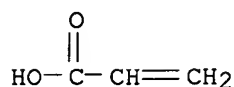
CRN 55818-57-0

CMF (C15 H16 O2 . C3 H5 Cl O)x . x C3 H4 O2

CM 7

CRN 79-10-7

CMF C3 H4 O2



CM 8

CRN 25068-38-6

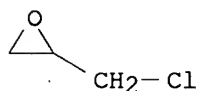
CMF (C15 H16 O2 . C3 H5 Cl O)x

CCI PMS

CM 9

CRN 106-89-8

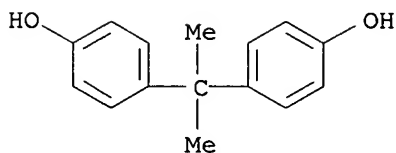
CMF C3 H5 Cl O



CM 10

CRN 80-05-7

CMF C15 H16 O2



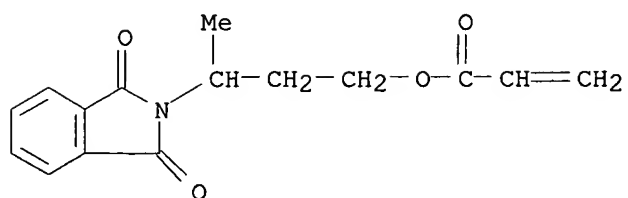
RN 137914-68-2 HCAPLUS

CN 2-Propenoic acid, (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tri-2,1-ethanediyl ester, polymer with (chloromethyl)oxirane polymer with methylenebis[phenol] 2-propenoate, 3-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)butyl 2-propenoate and 3,3,4,4,5,5,6,6-octafluoro-1,8-octanediol 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 126121-42-4

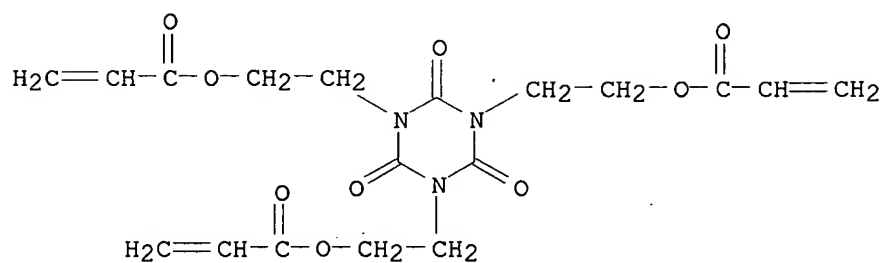
CMF C15 H15 N O4



CM 2

CRN 40220-08-4

CMF C18 H21 N3 O9



CM 3

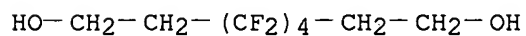
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CMF C8 H10 F8 O2 . x C3 H4 O2

CM 4

CRN 83192-87-4

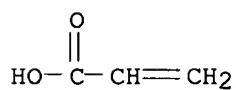
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CM 5

CRN 79-10-7

CMF C3 H4 O2

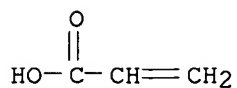


CM 6

CRN 86752-95-6
CMF (C13 H12 O2 . C3 H5 Cl O)x . x C3 H4 O2

CM 7

CRN 79-10-7
CMF C3 H4 O2



CM 8

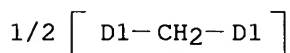
CRN 58421-55-9
CMF (C13 H12 O2 . C3 H5 Cl O)x
CCI PMS

CM 9

CRN 1333-16-0
CMF C13 H12 O2
CCI IDS

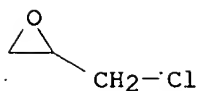


D1-OH



CM 10

CRN 106-89-8
CMF C3 H5 Cl O



L78 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 1990:140561 HCAPLUS
DN 112:140561

TI Curable acrylic fluoropolymer compositions
 IN Seko, Kenji; Kataoka, Haruhiko; Iwazawa, Naozumi; Kinaga, Yoshimasa
 PA Kansai Paint Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C08F299-00
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 42, 57, 73

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01223107	A2	19890906	JP 1988-50231	19880302
PRAI	JP 1988-50231		19880302		

AB Curable compns., useful for optical fiber sheaths and coatings, contain H₂C:CRCO₂(CH₂)_m(CpF₂p)(CH₂)_mOCOCR:CH₂ (I) (R = Me or H; m = 1 or 2; p = 1-12) and double bond-contg. polymers prep'd. from H₂C:CRCO₂(CX₂)_m(CF₂)_nX (R = Me or H; X = F or H; m = 1 or 2; n = 1-12). Thus, heating 60 parts Me iso-Bu ketone and 60 parts m-xylene hexafluoride 60 to 110.degree., adding 170 parts 1,1,2,2-tetrahydroheptafluorodecyl acrylate and 30 parts glycidyl methacrylate and an initiator, and polymg. gave a polymer. This polymer was heated with hydroquinone 0.1, Et₃N 1, and acrylic acid 16 parts at 110.degree. for 5 h to give a resin having no.-av. mol. wt. 16,000. A quartz optical fiber having a compn. contg. this resin 100, I (p = 4, m = 1, R = H) 60, and Daracur 1173 5 parts as the sheath was irradiated by UV to give a product having good weathering resistance and transmission loss 5 dB/km.

ST optical fiber weathering resistance; acrylic fluoropolymer optical fiber sheath; fluorodecyl acrylate copolymer optical fiber; glycidyl methacrylate copolymer optical fiber; UV curable sheath optical fiber; coating UV curable acrylic fluoropolymer

IT Slate
 (coatings for, curable acrylic fluoropolymer compns. as)

IT Optical fibers
 (sheaths for, weather-resistant UV-cured acrylic fluoropolymer compns. as)

IT Acrylic polymers, uses and miscellaneous
 RL: USES (Uses)
 (sheets, coatings for, curable acrylic fluoropolymer compns. as)

IT Coating materials
 (unsatd. acrylic fluoropolymers, contg. vinyl crosslinkers, for plastics and inorg. substrates)

IT Fluoropolymers
 RL: PREP (Preparation)
 (acrylic, unsatd., manuf. of, for curable optical fiber sheaths)

IT Acrylic polymers, preparation
 RL: PREP (Preparation)
 (unsatd., fluorine-contg., manuf. of, for curable optical fiber sheaths)

IT 25038-59-9, uses and miscellaneous
 RL: USES (Uses)
 (films, coatings for, curable acrylic fluoropolymer compns. as)

IT 818-61-1DP, carbamates with hydroxyethyl methacrylate-IPDI adduct-octafluoropentyl acrylate copolymer 54554-39-1DP, carbamates with heptafluorodecyl acrylate-hydroxyethyl methacrylate copolymers 78724-20-6DP, carbamates with hydroxyethyl acrylate-tetrafluoropropyl acrylate copolymers 113190-41-3DP, carbamates with hydroxyethyl

acrylate-TDI adducts 118256-10-3DP, carbamates with hydroxyethyl
acrylate-isophorone diisocyanate adducts 118277-41-1P 118277-42-2P
118277-43-3P 118277-44-4P 118277-45-5P 118333-73-6DP, carbamates
with hydroxyethyl acrylate 118367-06-9P 118367-07-0P

RL: PREP (Preparation)

(manuf. of curable, for optical-fiber sheaths and coatings)

IT 125635-54-3P 125635-56-5P 125635-57-6P 125635-58-7P 125635-59-8P
125635-60-1P 125635-61-2P 125649-69-6P **125874-37-5P**

RL: PREP (Preparation)

(manuf. of, as **UV-cured** weather-resistant optical
fiber sheaths)

IT 125658-82-4P

RL: PREP (Preparation)

(manuf. of, as coating for ABS polymer sheet)

IT 125658-78-8P

RL: PREP (Preparation)

(manuf. of, as coating for PET film)

IT 125658-79-9P

RL: PREP (Preparation)

(manuf. of, as coating for acrylic sheet)

IT 125658-81-3P

RL: PREP (Preparation)

(manuf. of, as coating for slate)

IT 9003-56-9

RL: USES (Uses)

(sheets, coatings for, curable acrylic fluoropolymer compns. as)

IT **125874-37-5P**

RL: PREP (Preparation)

(manuf. of, as **UV-cured** weather-resistant optical
fiber sheaths)

RN 125874-37-5 HCAPLUS

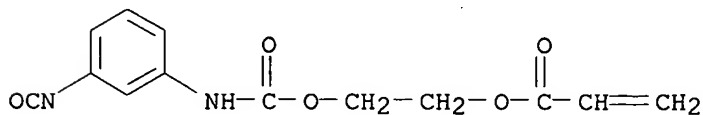
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl 2-propenoate,
2-[[[(3-isocyanatomethylphenyl)amino]carbonyl]oxy]ethyl 2-propenoate and
2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediyl di-2-propenoate (9CI) (CA INDEX
NAME)

CM 1

CRN 54554-39-1

CMF C14 H14 N2 O5

CCI IDS

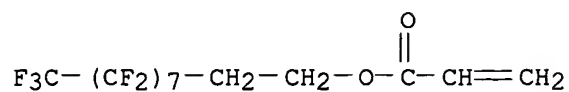


D1-Me

CM 2

CRN 27905-45-9

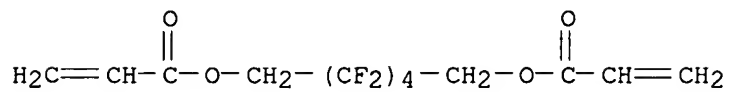
CMF C13 H7 F17 O2



CM 3

CRN 2264-01-9

CMF C12 H10 F8 O4.



CM 4

CRN 868-77-9

CMF C6 H10 O3

